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Kavteladze et al.

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[54] **PROSTHETIC DEVICE FOR SUSTAINING A BLOOD-VESSEL OR HOLLOW ORGAN LUMEN**

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[58] Field of Search **623/1, 12; 606/192, 606/194, 195, 108**

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[57] **ABSTRACT**

A prosthetic device for sustaining a vessel or hollow organ lumen (a stent) has a tubular wire frame (1) with rows of elongate cells (2) having a larger axis and a smaller axis. The cells are arranged with the larger axis in the circumferential direction of the frame (2) and the smaller axis parallel to the axial direction thereof. Each cell is formed by two U-shaped wire sections, and in a plane perpendicular to the longitudinal axis one of the branches of the U-shaped wire sections in one row form together a closed ring-shape (4) which provides the frame (1) with large radial stiffness. In the axial direction the frame (1) has only low stiffness so that it easily conforms to the vascular wall even if this deforms due to external loads. The interconnection between the cells (2) may be flexible.

20 Claims, 4 Drawing Sheets

